LNP™ COLORCOMP™ COMPOUND A10009

REGION AMERICAS

DESCRIPTION

COLORCOMP* A10009 is a compound based on ABS (non-PBBE additive) containing Flame Retardant. Added features include: Good Property/Toughness, Excellent Moldability.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	41	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	35	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	9	%	ASTM D 638
Tensile Modulus, 5 mm/min	2340	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	71	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2720	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	41	MPa	ISO 527
Tensile Stress, break, 50 mm/min	31	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	2.1	%	ISO 527
Tensile Strain, break, 50 mm/min	33.5	%	ISO 527
IMPACT			
Izod Impact, notched, 23°C	213	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	33	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	18	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	6	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	19	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	86	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	82	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	70	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.46E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.64E-05	1/°C	ASTM E 831
Vicat Softening Temp, Rate B/50	81	°C	ISO 306
Vicat Softening Temp, Rate B/120	84	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	73	°C	ISO 75/Af
Relative Temp Index, Elec (1)	60	°C	UL 746B
Relative Temp Index, Mech w/impact (1)	60	°C	UL 746B
Relative Temp Index, Mech w/o impact (1)	60	°C	UL 746B
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 230°C/3.8 kg	4	g/10 min	ASTM D 1238
Melt Viscosity, 200°C, 1000 sec-1	2900	Poise	ASTM D 3825

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.19	g/cm³	ISO 1183
Melt Flow Rate, 220°C/5.0 kg	10	g/10 min	ISO 1133
ELECTRICAL			
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 3	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 4	≥1.5	mm	UL 746A
High Voltage Arc Track Rate {PLC}	4	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	7	PLC Code	ASTM D 495
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E121562-103956750	-	-
UL Recognized, 94-5VA Flame Class Rating	≥2.5	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
UV-light, water exposure/immersion	F2	-	UL 746C
INJECTION MOLDING			
Drying Temperature	80 – 90	°C	
Drying Time	2 – 4	hrs	
Drying Time (Cumulative)	6	hrs	
Maximum Moisture Content	0.1	%	
Melt Temperature	200 – 220	°C	
Nozzle Temperature	200 – 220	°C	
Front - Zone 3 Temperature	200 – 215	°C	
Middle - Zone 2 Temperature	195 – 205	°C	
Rear - Zone 1 Temperature	170 – 180	°C	
Mold Temperature	50 – 70	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	30 – 60	rpm	
Shot to Cylinder Size	50 – 70	%	
Vent Depth	0.038 – 0.051	mm	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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